



中国国际战略研究基金会战略研究丛书

COMPARATIVE STUDY ON NUCLEAR STRATEGIES

EDITED BY
ZHANG TUOSHENG / LI BIN / FAN JISHE



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Research team of Comparative Study on Nuclear Strategies

January 2015

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Chapter 1

China's Nuclear Strategy

Sun Xiangli *

In the mid-1950s, after repeatedly suffering nuclear threats, Chinese government made the decision to develop nuclear weapons. Although the Chinese leader Mao Zedong asserted that nuclear weapons were a paper tiger, showing a high contempt to nuclear sticks, he actually adopted a realistic attitude when facing specific nuclear threats, defining the acquisition of nuclear weapons as a defensive national security measure with strategic importance. In the view of Mao Zedong, Zhou Enlai, and other policymakers, nuclear weapons were the most effective deterrent against nuclear threats, instead of instruments of war; in the era that the nuclear weapons were combined with hegemonism, the only way for China to eliminate nuclear blackmail and nuclear threats was to acquire its own nuclear weapons. Under such a consensus of views, the central government started to organize and lead the nuclear weapons project.

The main guidelines of China's nuclear strategy were established in the

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late 1950s and early 1960s by the highest leadership consisting primarily of Mao Zedong and Zhou Enlai. In the early stages of Chinese nuclear weapons development, a decision-making group, with Mao and Zhou at the core and a Central Special Committee (CSC) as its principal part, dominated the development process of the nuclear weapons project. Founded in December 1962, the CSC was a specialized agency in charge of the overall nuclear program directly under the leadership of the government and Central Military Commission (CMC). The CSC was composed of seven vice premiers and seven ministers with Zhou Enlai as the director. Zhou played a central role in the policymaking concerning the development and employment strategies of nuclear weapons. Under his leadership, the CSC defined major principles for the development of nuclear weapons, including such important issues as development priority, size, composition, and technical requirements of the nuclear forces; it was also under his leadership that the CMC and relevant military agencies made the nuclear weapons operational arrangements including the building of missile bases and establishing a whole set of guidelines and principles concerning nuclear weapons storage and deployment.

The nuclear weapons program of China remained classified during a long period, some details of its nuclear strategy, especially those relevant to the forces size, detailed deployment information, and targeting options, had never been made public. However, the basic thoughts and principles were not secrets, which were declared in the government statement just after China's first nuclear test, and in numerous major leaders' remarks on many occasions. The *China's National Defense White Paper* in 2006 provided a compendious description to such thoughts, in which China's nuclear strategy was described as "self-defensive strategy". It defines that the role of nuclear weapons in the national security is to undertake the task of "strategic deterrence", and the development principle is "lean and effective". After examination of the guiding principles and instructions

issued by Chinese policymakers as well as various nuclear policy declaration documents, the basic framework of China's nuclear strategy can be summarized as follows:

(1) the main purpose of developing nuclear forces is to oppose nuclear blackmail and nuclear threats, and nuclear weapons are only for deterring nuclear attacks from other states;

(2) the overall goal of the nuclear program is to build independent nuclear forces capable of nuclear retaliation and establish an effective nuclear deterrent;

(3) China will not get involved in any arms race; nor will it blindly pursue the quantity of nuclear weapons or nuclear war-fighting capability. China will only remain a limited scale of nuclear forces to ensure the capability of effective nuclear retaliatory strike;

(4) Attaching importance to the survivability, safety, security, and reliability of nuclear forces, and maintaining a rigorous command and control system;

(5) Being committed to no first use (NFU) of nuclear weapons, while remaining capable of effective nuclear retaliation under nuclear attacks;

(6) Supporting the objective of complete prohibition and thorough destruction of nuclear weapons, as well as any international efforts to the nuclear arms control for the sake of such an objective.

The basic framework of China's nuclear policy was established as far back as the early stages of its nuclear program, and the main nature and characteristic have remained unchanged in the past half century. The stability and continuity are not accidental. They are based on the decision basis of the nuclear strategy, which is deeply rooted in policymakers' sober understanding of the nuclear weapons' special nature and role, and the defensive nature of China's national defense policy. From the very beginning, Chinese leaders such as Mao and Zhou had realized the political constraints in using nuclear weapons and the irreplaceable deterrence role of nuclear weapons. They were also aware of that the effect of nuclear deterrence was not directly related to the number of nuclear

weapons, nor the combat ability in battlefields. They believed that as long as a basic nuclear retaliatory capability was maintained, deterrent against adversaries' nuclear blackmail or nuclear threats could be achieved, with no need to compete with other nations in the quantity and war-fighting capability of nuclear weapons. In their view, nuclear weapons were strategic and political weapons rather than tactical and battlefield ones. According to such concepts, when they decided that nuclear weapons became a necessity for the national security, they set necessary restrictions on the scope of nuclear weapons employment, clearly reflected in the NFU policy which limiting the fundamental role of nuclear weapons only to deterring nuclear attacks, and established the guideline to achieve strategic deterrence through limited nuclear forces. It can be said that the judgment and understanding of Chinese leaders like Mao and Zhou concerning the special nature and role of nuclear weapons constitute the thinking foundation of the unique Chinese nuclear strategy.

Thanks to the clear thinking in strategic guidelines, the highly centralized leadership, and the vigorous coordination between relevant R&D departments, China's development of nuclear forces was highly efficient and orderly. China's first atomic device explosion was successfully conducted in October 1964, the launching test of medium-short-range missile carrying a nuclear warhead was completed in October 1966, its first hydrogen bomb test succeeded in December 1966, and the launching test of its medium-range missile was conducted successfully in May 1967. China's nuclear weapons project was developing in a remarkable pace. However, since the late 1960s, the Cultural Revolution, an overwhelming political campaign, spread over the country, and brought about serious obstruction to the nuclear weapons project. The nuclear program development was slowed down dramatically until the end of 1976, when the Cultural Revolution came to its end and the domestic situation began to return to normal. In 1977, the central government began to reorganize the national defense science and technology enterprise and push hard for the

recovery of scientific research order, and the nuclear weapons project was revived henceforward. On September 18, 1977, the CSC made the decision to focus efforts on the development and testing of intercontinental ballistic missiles (ICBM), submarine-launched ballistic missiles and communication satellites. The test of solid-propellant ICBM succeeded in 1985; the flight test of strategic missile launched by a nuclear submarine from underwater succeeded in 1988. So to speak, after over a decade of delay due to the Cultural Revolution, the construction of China's nuclear forces regained its vitality, and became mature gradually.

China also presented its unique policy and behavior in the field of nuclear arms control. During the first three decades of the Cold War, due to political and other reasons under then international strategic structure, China chose to not to get involved in the nuclear arms control and disarmament mechanism dominated by the US and the USSR. But China had always taken a strong supportive attitude towards the international efforts of nuclear disarmament. In 1959, Mao Zedong stated, "we agree that great efforts should be made to ban atomic war, and we should strive for a non-aggression agreement between the two blocs." On October 16, 1964, in the government statement after its first nuclear test, China made the following proposal to governments from all over the world: a world wide state head summit should be convened to discuss the complete prohibition and thorough destruction of nuclear weapons; as a first step, the summit should reach an agreement that nuclear weapons states and soon-to-be nuclear weapons states should undertake not to use nuclear weapons, not use nuclear weapons against non-nuclear states and the nuclear-weapons-free zones, and also not to use nuclear weapons against each other. In a word, in these three decades, China's nuclear arms control policy was focused on anti-nuclear monopoly, anti-nuclear war, and anti-arms race between the US and the USSR, with a basic position to support the goal of international nuclear arms control and disarmament. Meanwhile, China applied a unilateral self-restraining

policy in the development and employment of its own nuclear forces. Since the 1980s, with the evolving of global nuclear posture and strategic environment, as well as the ease of political relations between the East and the West, China has been getting involved in more and more international cooperation mechanisms of multilateral arms control and disarmament. In 1980, China sent a delegation to the Conference on Disarmament in Geneva for the first time. In 1984, China joined the International Atomic Energy Agency (IAEA), and in the same year, put forward a “three no’s” policy, namely, not advocating and not engaging in the proliferation of nuclear weapons, and not helping other countries to develop nuclear weapons; in March 1992, China acceded to the Treaty on the Non-Proliferation of Nuclear Weapons; in September 1996, China signed the *Comprehensive Nuclear Test Ban Treaty*. In the recent decade, basing on its insistent standpoint in favor of comprehensive nuclear disarmament, China has proposed some new measures and suggestions in global nuclear disarmament and nuclear arms control under the new international security environment, which includes: the US and Russia should take the lead to substantially reduce their nuclear arsenals; nuclear arms race and the deployment of strategic missile defense systems should be opposed and global strategic stability should be firmly maintained; addressing both the symptoms and root causes of nuclear proliferation, with the strengthening of IAEA safeguards on the one hand, and eliminating the motives for developing nuclear weapons on the other, which should be combined with the development of regional security mechanism and the balancing of non-proliferation obligations with the right for peaceful use of nuclear energy of all countries; the nuclear disarmament and the nuclear non-proliferation should be developed coordinately.

China’s nuclear strategy, compared with those of other nuclear states, has its unique feature and advantages. First, China has not gotten involved in arms race with any other states. Such a decision not only allowed China to save a huge amount of budget, but also helped to maintain strategic stability among nuclear

states. Second, a lean and effective nuclear arsenal is easy to manage, maintain, and upgrade. And thirdly, its NFU pledge and security assurances to non-nuclear weapon states are consistent with its non-proliferation policy. In a word, China has exercised self-restraint in the role defining, development and deployment of its nuclear forces, which conforms to the requirements of process of global nuclear disarmament and arms control, and is beneficial to the maintaining of global strategic stability. China's approach to nuclear weapons not only shows restraints, but also demonstrates a self-confidence and detachment. China really has made a very wise nuclear strategy.

At present, the international situation is undergoing significant changes, thus China is facing different security environment compared with the early stages of its nuclear weapons development. However, there is no fundamental transformation that would shake the basis of its nuclear strategy principles. As mentioned previously, the decision basis of China's nuclear strategy is rooted in the policymakers' views of the special nature of nuclear weapons and its long held national defensive military strategy. Presently, despite the fact that military technologies have experienced unprecedented breakthroughs and development, there is no substantial change to the tremendous deterrence function of nuclear weapons in military and their political limitations, so the views of the Chinese government and the strategic community in this regard have not changed substantially. With this unchanged views of the special nature of nuclear weapons, a long held defensive military strategy, and the advantage of the "lean and effective" road in nuclear development, it can be predicted that for a rather long time in the future, nuclear weapons will continue to play a defensive strategic deterrence role in the national security, China will continue the policy of exercising restraint in the development and employment of its nuclear forces, and China's nuclear policy will continue to be highly stable.

The continuity and stability of its nuclear strategic thinking means there will be no substantial changes to the main guidelines of China's nuclear strategy.

However, this is not equivalent to say that the size and specific operational posture of its nuclear forces will remain invariable forever. Presently, the capabilities of other countries' strategic missile defense, space surveillance, and precision strike are developing rapidly, which will inevitably affect the survivability of China's nuclear forces, posing challenges to the effectiveness of China's nuclear deterrent. Therefore, in order to ensure the continue effectiveness of its nuclear deterrent, China has to improve the level and technical requirements of its nuclear forces, with survivability, penetration, safety, reliability, and command and control systems particularly needed to be strengthened and improved. From the development history of China's nuclear forces, it could be concluded that the directive criterion for determining the size and capability of China's nuclear forces is: after suffering a nuclear attack by its adversary, there are sufficient nuclear weapons surviving the attack to carry out a retaliatory strike and inflict unacceptable damage on the adversary. It can be predicted that under the guidance of this strategic guideline, the scale and posture of China's nuclear forces will experience some changes with the change of security environment, but China will not expand its nuclear arsenal on a large scale. China has repeatedly affirmed that, in the National Defense White Papers as well as in other official documents, it "will not take part in any form of nuclear arms race with any country", which means that China will not compete with any country on the scale of nuclear forces; nor will it pursue the war-fighting capability, or the nuclear parity exists between the super nuclear powers. This is determined by China's unique defensive nuclear strategy.

In summary, China made the decision to develop nuclear weapons after suffering nuclear threats on many occasions. The development of China's nuclear forces was carried out under a centralized and rigorous decision-making and leadership mechanism with Mao Zedong and Zhou Enlai as the core. The self-defensive nuclear strategy shaped by the decision-making group is clear in its content, and stable in its basic principles, the core of which is:

to achieve a deterrent by developing limited level of nuclear forces that are capable of carrying out a nuclear retaliatory strike (nuclear counterattack).“The NFU pledge” “lean and effective” and “self-restraint” are the most distinct characteristics of this strategy. The essence of China’s nuclear strategy is: this is a strategy mainly for deterring nuclear attacks, a strategy according to which strike will only be launched after being attacked, and a strategy for preventing nuclear war instead of fighting or winning nuclear war.

Chapter 2

Studies on US Nuclear Strategy

Li Deshun*

As the first country to possess and the only country that has used nuclear weapons, the US has always been taking its nuclear strategy as an important support for its national security strategy and military strategy. In more than 6 decades, the evolution of US nuclear strategy features “change with time”. However, its practice of taking nuclear weapons as the footstone of national security and the implementation of “nuclear deterrence” strategy have never changed. The changes only lie in ways, means and tactics of deterrence.

The ideology and content of US nuclear strategy are mainly demonstrated in 4 aspects, namely the nuclear deterrence strategy, the nuclear force employment strategy, the nuclear force development strategy, and the nuclear arms control policy. By evolution of nuclear strategy, it means the development and changes of basic contents of various components under this structure.

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Nuclear Deterrence Strategy

The nuclear deterrence strategy is a comprehensive policy publicly claimed by the US President and Secretary of Defense on theories and principles of nuclear deterrence, targets of nuclear strike, and other aspects. There are two objectives for the US nuclear deterrence strategy: (1) to deter military attacks on US mainland by potential enemies; (2) to deter attacks on US allies by potential enemies, which are named “central deterrence” and “extended deterrence” respectively. According to the deterrence theory, deterrence is mainly achieved through “punitive deterrence” (retaliation) and “denying deterrence” (attack and defense), with the core intent of convincing the potential enemy that invasion does not pay. This determines that the US nuclear deterrence strategy should include the following items, such as the selection of strike targets, the type and number of nuclear weapons to be developed, and the deployment of nuclear weapons, so as to provide guidance for the employment and development strategies of nuclear forces.

The nuclear deterrence strategy is also related to the understanding of nuclear weapons and nuclear warfare. There are two factions on this in the US, namely the liberals and the conservatives respectively, whose debate over time has become the important ideological basis for the evolution of US nuclear deterrence strategy. The focus of debate between conservatives and liberals lies in whether the nuclear weapons are primarily used for deterrence or for combat. The result is the fusion of the two, with slight upper hand for the conservatives’ view, i.e. “combat and deterrence”. The changing preponderance of the two in debate has led to the transition of US nuclear strategy from “combat” in the early days to “pure deterrence”, and then to “combat and deterrence”.

The first clearly defined US nuclear strategy is the “mass retaliation” strategy of the Eisenhower administration, which proposes a preemptive surprise attack